

respective wavelength of light incident on a respective one among the light-sensing cells.

9. The image sensor of claim 1 further comprising an image synthesizer configured to generate a multi-color image by synthesizing images of different colors,

wherein at least two among the light-sensing cells produce the images of different colors.

10. The image sensor of claim 1 further comprising an image synthesizer configured to generate a stereo image based on images that are produced by the light-sensing cells.

11. The image sensor of claim 10, wherein the image synthesizer is further configured to extract depth information about an object appearing in the stereo image.

12. An image sensor comprising:

a substrate;

thin lenses disposed on a first surface of the substrate and configured to concentrate lights incident on the first surface; and

light-sensing cells disposed on a second surface of the substrate, the second surface facing the first surface, and the light-sensing cells being configured to sense lights passing through the thin lenses, and generate electrical signals based on the sensed lights,

wherein a first thin lens and second thin lens of the thin lenses are configured to concentrate a first light and a second light, respectively, of the incident lights to have different focal lengths.

13. The image sensor of claim 12, wherein the substrate comprises sub-substrates, and

the thin lenses and the light-sensing cells are respectively disposed on a first surface and a second surface of each of the sub-substrates.

14. The image sensor of claim 12, wherein the concentrated lights have predetermined wavelengths.

15. The image sensor of claim 12, wherein each of the thin lenses comprises scatterers, and each of the scatterers has a pillar structure.

16. The image sensor of claim 15, wherein an interval distance between a pair of the scatterers is less than a respective wavelength of light concentrated by a respective one among the thin lenses.

17. The image sensor of claim 15, wherein a height of the scatterers is less than a respective wavelength of light concentrated by a respective one among the thin lenses.

18. The image sensor of claim 15, wherein shapes of the scatterers and interval distances between respective pairs of the scatterers vary with a respective wavelength of light concentrated by a respective one among the thin lenses.

19. The image sensor of claim 12 further comprising a depth map calculator configured to:

calculate a defocusing degree of an image that is produced on each of the light-sensing cells; and

calculate depth map information about an image that is produced by the incident lights, based on the defocusing degree.

20. The image sensor of claim 12 further comprising a light filter layer configured to filter a wavelength of light incident on each of the light-sensing cells.

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